

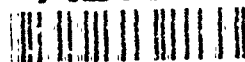
Navy Personnel Research and Development Center

San Diego, California 92152-7250

AP-93-8

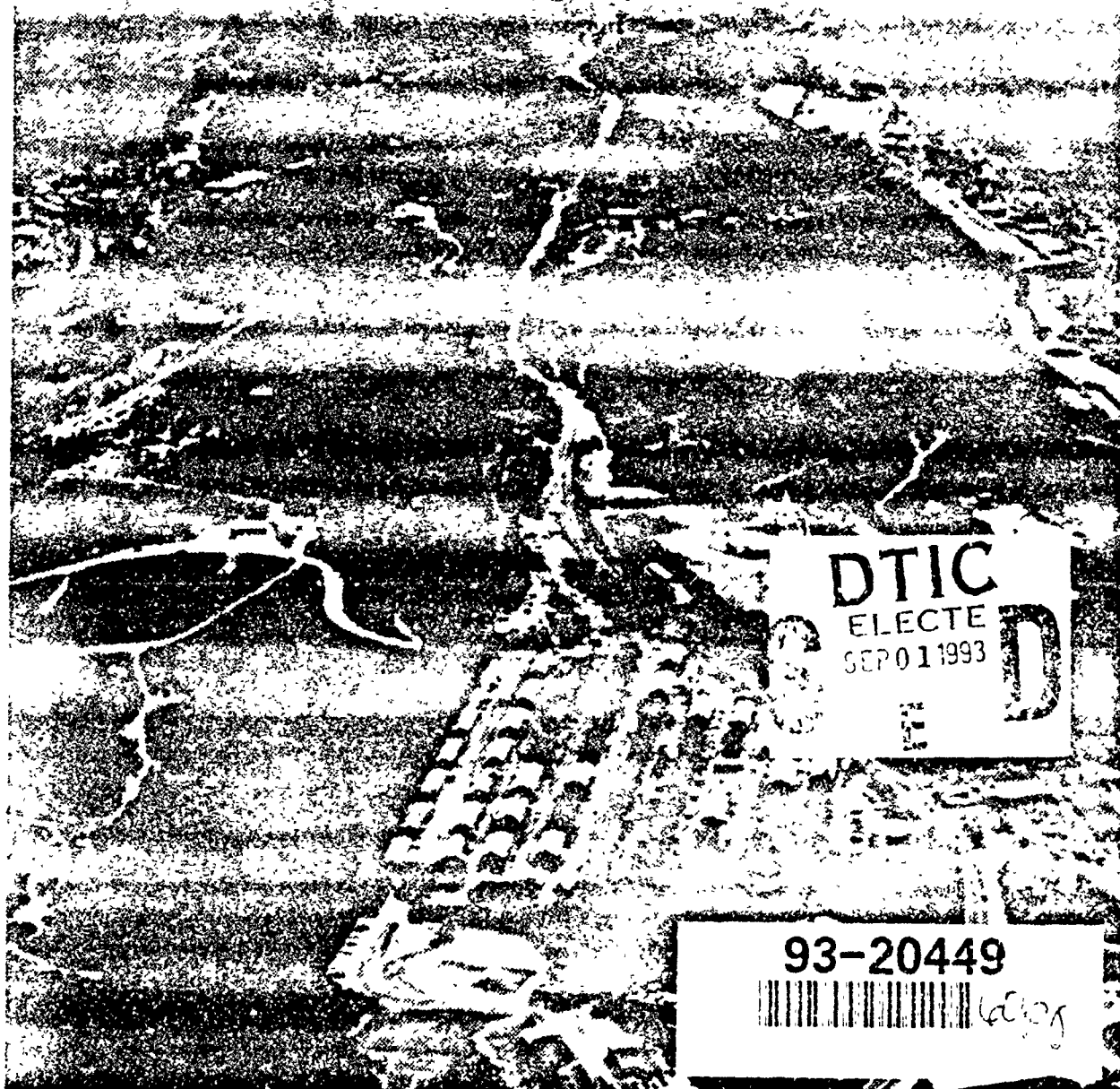
July 1993

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Command History

Calendar Year 1992



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Command History Calendar Year 1992

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Introduction

The Navy Personnel Research and Development Center (NPRDC) Command History for CY92 is submitted in conformance with OPNAVINST 5750.12E. The history provides a permanent record of CY92 activities.

Operating Philosophy

NPRDC is an applied research center, contributing to the personnel readiness of the Navy and Marine Corps. The Center develops better ways to attract qualified people to the naval services to: select the best, assign them where they are most needed, train each one effectively and efficiently, and manage our personnel resources optimally. By combining a deep understanding of operational requirements with first-rate scientific and technical abilities, the Center is unique in being able to develop new, useful knowledge and refine technology to address people-related issues. This dual expertise permits the Center to develop the technology base for improving the use of human resources within Navy systems and to apply state-of-the-art technology to solve emerging problems. The organizational structure of NPRDC is represented in Figure 1. As a corporate asset, NPRDC is responsive to the needs of manpower, personnel, and training managers in the Navy, Marine Corps, and Department of Defense (DOD); to the operating forces; and to the shore establishment that trains and supports the fleet.

The research and development (R&D) methods used by NPRDC are derived from behavioral, cognitive, economic, and social sciences as well as from applied mathematics and statistics. The application of these methods results in tangible products of use to the Navy and Marine Corps. NPRDC constantly searches for technological opportunities to improve personnel readiness and to reduce manpower costs. We are accountable to the Chief of Naval Personnel (CHNAVPERS), our sponsors, and our users for high productivity, strict ethics, honesty, integrity, professionalism, and perspective. The Center's reporting relationship is depicted in Figure 2.

As part of its operating philosophy, NPRDC seeks to do as much of its work as possible in operational setting where the final products of our efforts are intended to be used. This helps to ensure that the needs and requirements of the users are met and that the users themselves become familiar with the operational capabilities of the particular products. In some cases, because of the close researcher and user interaction, interim or prototype products have been put into use before the final product has been completed. Examples of NPRDC's on-site research applications are shown in Appendix A.

Further interactions with operational commands involve a variety of manpower, personnel, and training (MPT) databases that NPRDC has developed and maintained. Because NPRDC is an in-house, corporate laboratory, these databases are readily available to support many different operational users and requirements. The databases, descriptions, and principal users are shown in Appendix B.

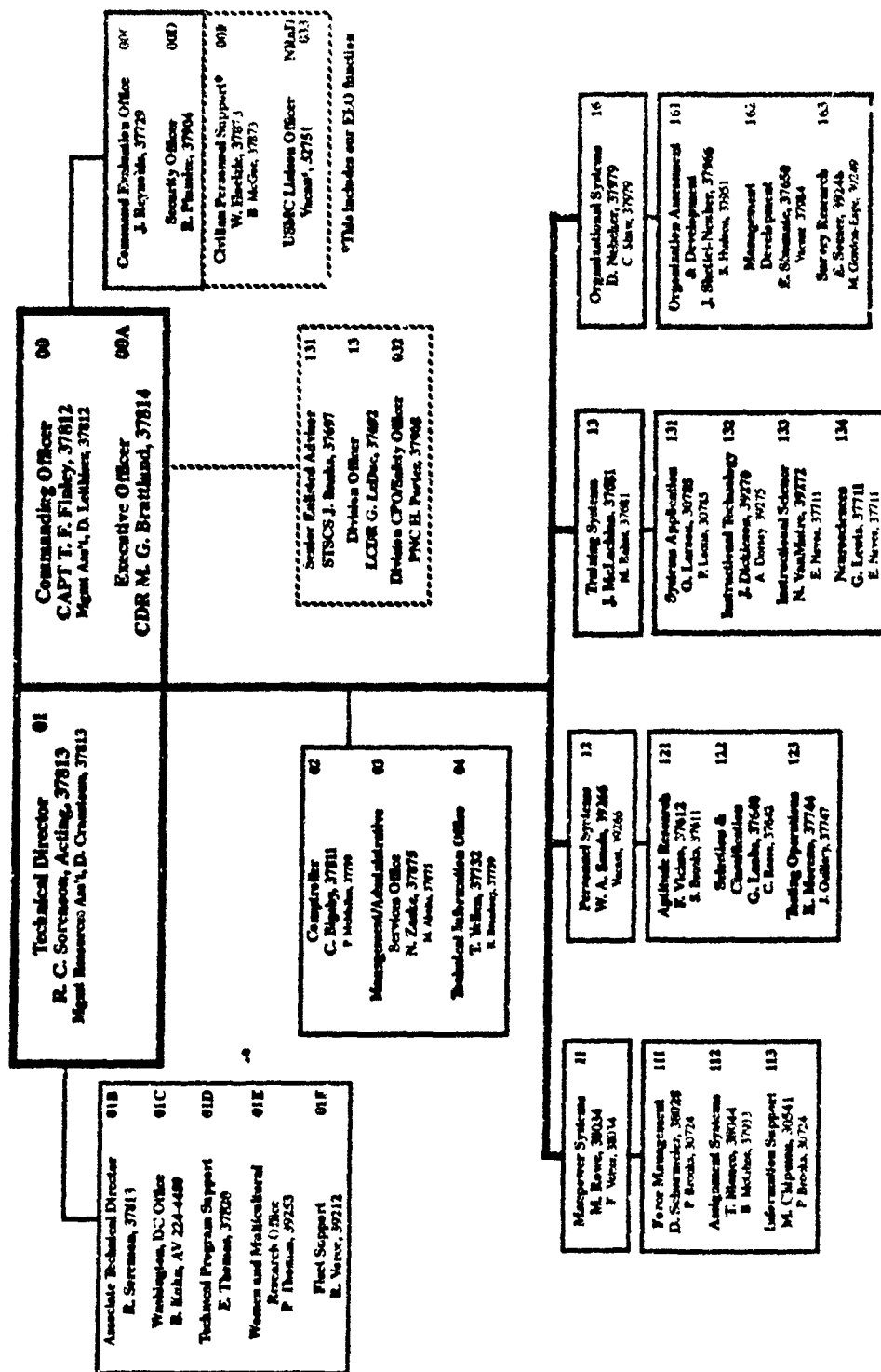


Figure 1. NPRDC organization.

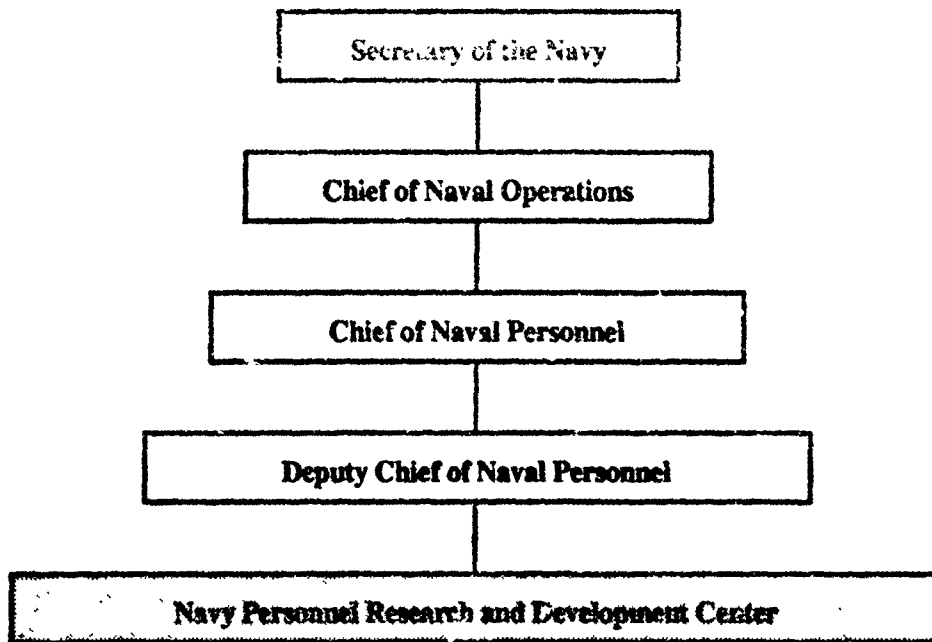


Figure 2. 1992 reporting relationships (Department of the Navy Research, Development, Testing, and Evaluation Organization).

Commanding Officer's Biography

Captain Thomas F. Finley Jr. was born in Norwood, Massachusetts. He is a 1966 graduate of the University of Maryland, was commissioned as ensign in June 1967, and received his Navy Pilot Wings in October 1968.

Captain Finley's first tour of duty was with Helicopter Antisubmarine Squadron SIX (HS-6) where he deployed to Vietnam aboard U.S. KEARSARGE (CVS-33), the Mediterranean aboard USS INDEPENDENCE (CVA-62), Canada aboard HMCS PROVIDER (AOR-508), and as copilot of the recovery helicopter for APOLLO 14 astronauts while aboard USS NEW ORLEANS (LPH-11).

After a tour as a flight instructor in HS-10, Captain Finley was Flight Deck Officer in the commissioning crew aboard the USS TARAWA (LHA-1). Ashore, he was the Helicopter Pilot Assignment Officer at the Bureau of Naval Personnel (BUPERS) and later served as Assistant Detailer for Aviation Captains.

As Executive Officer then Commanding Officer of the HS-4 "Black Knights" he made an Indian Ocean deployment aboard the USS KITTY HAWK (CV-63) and an around-the-world cruise on USS CARL VINSON (CVN-70).

In Washington, DC, Captain Finley worked as Assistant Director of U.S. Senate Liaison in the Office of the Secretary of the Navy and later served as the Major Staff Placement Officer at the Naval Military Personnel Command. He reported aboard the USS OKINAWA (LPH 3) as Executive Officer in September 1986 and made cruises to the Far East and to the Persian Gulf.

Captain Finley served for two years as Executive Assistant to the Commander Naval Air Force Pacific Fleet prior to reporting as Commanding Officer of NPRDC in January 1991.

Captain Finley's decorations include four awards of the Meritorious Service Medal as well as various unit, service, and campaign awards.

Captain Finley is the son of Mr. and Mrs. T. F. Finley, Sr. of Peaks Island, Maine. He is married to the former Joyce Andrews of Chevy Chase, MD. They have two sons, Matthew and Gregory and reside in Coronado, CA.

Technical Director's Biography

Dr. Richard C. Sorenson has served as the Acting Technical Director, NPRDC since February 1990.

He has been employed at the Center since its formation in 1973 and has planned, directed, and carried out research and development in personnel, training, human factors, neurosciences, and organizational systems. Since 1988, he has been the Associate Technical Director.

Before the Center was formed, Dr. Sorenson was on the staff of the Naval Personnel and Training Research Laboratory, the Army Research Institute, the American University, and the University of Washington.

Dr. Sorenson received his B.S. degree from the University of Idaho in 1959, and his M.S. and Ph.D. degrees from the University of Washington in 1962 and 1965 majoring in psychology. Later he studied mathematics, statistics, and economics at George Washington University. He is a licensed psychologist.

Dr. Sorenson was the recipient of the 1989 NPRDC Professional Publications Award and the 1990 Commander's Award for Management Excellence. He is a fellow of the American Association for the Advancement of Science. He is the author of over 40 professional contributions including book chapters, journal articles, and papers presented at professional meetings.

Dr. Sorenson is married to the former Bertha Hartung. They have eleven children.

History

- 1 July 1951 The Naval Personnel Research Unit, San Diego, CA was established under the Bureau of Naval Personnel to provide a personnel research facility close to the operating forces.
- 1 July 1952 The U.S. Naval Personnel Research Field Activity was established in Washington, DC to provide an activity close to Navy users and systems.
- 26 May 1961 SECNAV Notice 5450 redesignated the two field activities as U.S. Naval Personnel Research Activities.
- 10 December 1968 OPNAV Notice 5450 redesignated the Naval Personnel Research Activity, Washington, DC as the Naval Personnel Research and Development Laboratory due to increased emphasis on R&D.
- 1 August 1969 The Chief of Naval Operations redesignated the Naval Personnel Research Activity, San Diego, CA as the Naval Personnel and Training Research Laboratory.
- 1 May 1973 The Secretary of the Navy approved the establishment of NPRDC, San Diego, CA to provide a corporate personnel laboratory with an in-depth capability in the behavioral and management sciences. This action consolidated those research functions assigned to the Naval Personnel Research and Development Laboratory, the Naval Personnel and Training Research Laboratory, and the Personnel Research Division of BUPERS.
- 17 May 1975 OPNAV Notice 5450 changed command and support responsibility for NPRDC from the Chief of Naval Personnel (CNP) to the Chief of Naval Material (CNM).
- 22 May 1980 NAVMATINST 5450.27B modified the mission statement to include technical and consultant support and services to CNO in the design, development, and operation of the Navy personnel system.
- 1 October 1980 The Commanding Officer, NPRDC directed to report for additional duty to DCNO (Manpower, Personnel, and Training) (OP-01).
- 6 May 1985 The disestablishment of CNM changed command and support responsibility for NPRDC from CNM to Chief of Naval Research (CNR).
- 24 February 1986 The Secretary of the Navy changed command and support responsibility for NPRDC from CNR to Space and Naval Warfare Systems Command (SPAWAR).
- 27 March 1988 Management control of NPRDC was transferred from SPAWAR to CNP/Commander, Naval Military Personnel Command (NMPC). NMPC was charged with direct management of NPRDC.
- 12 September 1991 OPNAV Notice 5450 disestablished NMPC and delegated BUPERS with direct management of NPRDC.

25 September 1991

OPNAV Notice 5450 modified NPRDC's mission to conduct research and development to improve the performance of individuals, teams, and organizations within the Navy and Marine Corps, to provide products and services specifically directed at improving Department of the Navy personnel planning, testing, acquisition, selection, classification, training, utilization, motivation, organization, management, and other contemporary issues; and to perform other functions as directed by higher authority.

Organization

Mission

To conduct R&D to improve the performance of individuals, teams, and organizations within the Navy and Marine Corps. To provide products and services specifically directed at improving Department of the Navy (DON) personnel planning, testing, acquisition, selection, classification, training, utilization, motivation, organization, management, and other contemporary issues.

Philosophy

We believe people are the most valuable resource of the Navy and Marine Corps. People have the unique capability to take action based on objectives and values in rapidly changing environments. We believe, therefore, that improving the ability of people to perform their assigned tasks is necessary to maximize the effectiveness of weapon systems. Moreover, we believe our efforts will improve the quality of service life and the effectiveness of MPT, and organizational systems and result in a more effective naval force.

Vision

For the Navy and the Marine Corps, the current decade will be the beginning of an era of new missions, changing force structure, and shifting priorities. Each Service will prepare itself to be ready at all times to conduct a large number of varied operations in potentially hostile environments. New capabilities and technologies will be developed to meet the challenges of these new responsibilities and threats. Of critical importance will be the continuing need to attract and retain a professional personnel force of the very brightest and most capable young people in the nation.

Through this period and beyond, we see NPRDC continuing to grow in leadership and influence as the Navy and the Marine Corps' principal center for MPT and organizational systems R&D. We will be recognized for our innovation, initiative, the teamwork of our people, and our ability to anticipate and effectively respond to change.

Our principal value will continue to be in the products and services we provide. As an integral part of the Navy and Marine Corps family, we are motivated and able to seek out and solve the most important Navy and Marine Corps problems within our mission area. We are committed to developing close working relationships with our sponsors and customers and to meeting their needs in a timely, cost-efficient, scientifically valid manner.

Our major strength will continue to be our staff whose talents cover a broad range of technical disciplines. We are proud of the research scientists who, along with members of the support staff, contribute so much to enhancing the Center's reputation within the operational and scientific communities. We will build on this strength by developing and expanding the skills of the present

staff and hiring new individuals as needed to respond effectively to a wide variety of Navy and Marine Corps problems and opportunities.

As a R&D activity, we will continue to fulfill our responsibility to identify and test the applicability of current and emerging scientific technologies to the solution of Navy and Marine Corps MPT and organization systems problems. We will strive to maintain our recognized expertise in the core technologies associated with manpower modeling; ability, interest, and attitude measurement; instructional design; organizational evaluation; and quality management. At the same time, we will develop new technologies in these areas.

In pursuing this vision, we will strive for continuous improvement in the quality of our internal operations and in the products and services we provide. We will establish meaningful, measurable goals and procedures for assessing progress in attaining them. We will recognize and reward the contributions of our staff. We will remain open to change and flexible in setting future directions and strategies. We are confident that these actions, in total, will assure our continued role in helping to build a stronger and more effective Navy and Marine Corps.

Goals

1. Design and develop MPT and organizational systems products and services that significantly enhance the ability of the Navy and Marine Corps to carry out their missions.
2. Attract, develop, and retain talented and motivated personnel through Center policies and practices that foster and reward proactive behavior, teamwork, communication, trust, risk taking, and innovation.
3. Conduct a technology base program (i.e., basic research, exploratory development, and advanced technology demonstrations) to meet Navy and Marine Corps personnel and operational requirements and to maintain scientific and technical leadership in MPT and organizational systems areas.
4. Maintain in-house scientific expertise and corporate knowledge to ensure technological innovation, "smart buyer" assistance, and real-world understanding of MPT and organizational systems requirements.
5. Anticipate future needs of NPRDC sponsors and customers and meet them through use of appropriate technology, prioritization of R&D requirements, and by facilitating transitions of products into operational use.
6. Seek continuous improvement in the quality of NPRDC products and services, and the way they are applied to naval systems.

Functions

1. Plans and develops effective MPT and organizational systems products and services for Navy and Marine Corps operational application. Provides technical assistance to support the transition and implementation of Center products.
2. Develops and maintains in-house Navy and Marine Corps scientific and technical expertise to provide corporate knowledge, corporate memory, technological innovation, "smart buyer" assistance, and real-world understanding necessary for the development and support of Navy and Marine Corps MPT and organizational systems.
3. Plans and conducts an effective technology base program (basic research, exploratory development, and advanced technology demonstrations) to meet existing and projected operational requirements and to maintain scientific and technical leadership in MPT and organizational areas.
4. Develops new systems and methods for determining manpower requirements, allocating manpower resources, developing personnel inventories, and distributing/assigning those inventories to improve military readiness and control costs.
5. Develops new systems and procedures for recruiting, selecting, classifying, and utilizing officer, enlisted, and civilian personnel to improve performance, satisfaction, and retention.
6. Serves as the Chief of Naval Personnel's primary resource to coordinate and conduct personnel surveys in the Navy and to develop new survey methodology for the Navy and Marine Corps.
7. Develops and evaluates personnel testing systems, and computerized adaptive testing versions of the Armed Services Vocational Aptitude Battery (CAT-ASVAB). Serves as Lead DOD R&D laboratory for overall management of CAT research, development, implementation, and scientific support of the system.
8. Develops training technologies to enhance personnel readiness.
9. Employs existing and emerging technologies in the development and application of training systems to alleviate Navy and Marine Corps training problems and improve the Navy's operational readiness.
10. Develops and evaluates innovative management and leadership systems for improving the effectiveness and readiness of Navy and Marine Corps personnel and organizations.
11. Develops and evaluates innovative motivation and reward systems for improving the efficiency and effectiveness of Navy and Marine Corps personnel and organizations.
12. Develops and evaluates educational material on innovative management and leadership systems for Navy and Marine Corps personnel and organizations.
13. Develops methods, procedures, and instruments for assessing the effectiveness and efficiency of management and leadership practices in Navy and Marine Corps organizations.

14. Develops, evaluates, and applies innovative personnel assessment technology.
15. Provides independent analyses, technical advice, and consultation to research, development, test, and evaluation (RDT&E) and operational managers in matters related to the Center's mission.
16. Investigates, defines, and addresses operational problems related to fleet personnel performance.
17. Maintains a field office in Washington, DC for the purpose of conducting on-site projects.
18. Develops, installs, and provides life-cycle support for information management systems.
19. Provides information and reports to higher authority and the scientific community on the progress and accomplishments of the Center's program.
20. Provides technical support in the development of the Chief of Naval Personnel's long range plan with regard to the infusion of appropriate technology, definition and prioritization of RDT&E requirements and the transition of products into operational use.
21. Provides information and technical support to the Center's BUPERS Program Manager in all matters related to the Center's operation.
22. Develops and maintains liaison with Navy, DOD, and civilian RDT&E organizations for the exchange of information and the establishment of cooperative efforts in MPT and organizational systems areas.

Center Resources

Funding

NPRDC operates under the RDT&E Resources Management System. Under this system, the final fiscal responsibility resides with the Commanding Officer and certain financial responsibilities are delegated to cost center managers. The reporting procedures associated with the Resources Management System provide financial information for both internal management and higher authority.

The principal mission sponsor and prime "customer" for Center RDT&E products is OP-01/BUPERS. Significant sponsorship also comes from the CNR, the Marine Corps, and other Navy and DOD organizations including the Systems Commands. The majority of RDT&E that the Center conducts is supported by directly funded projects. A small portion of the funds are independent research (IR) and independent exploratory development (IED). In addition, a substantial portion of research, development, and analysis consists of "reimbursables," specific problem solving efforts requested by, and supported with funding from other organizations.

NPRDC's funding for the end of FY92 was \$27.3 million. Distribution, source, and appropriation of funds are shown in Figures 3 and 4.

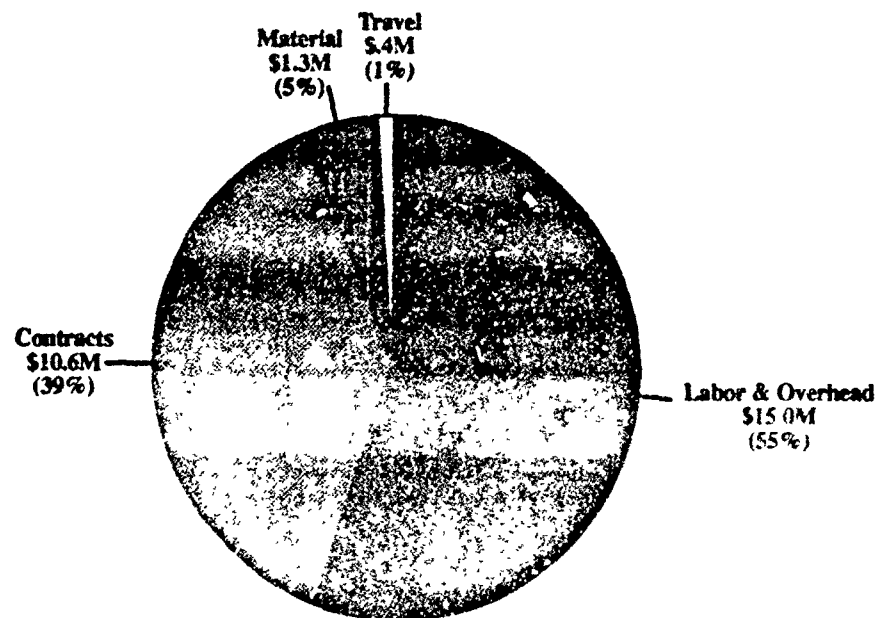


Figure 3. Distribution of funds (\$27.3M, 30 September 1992).

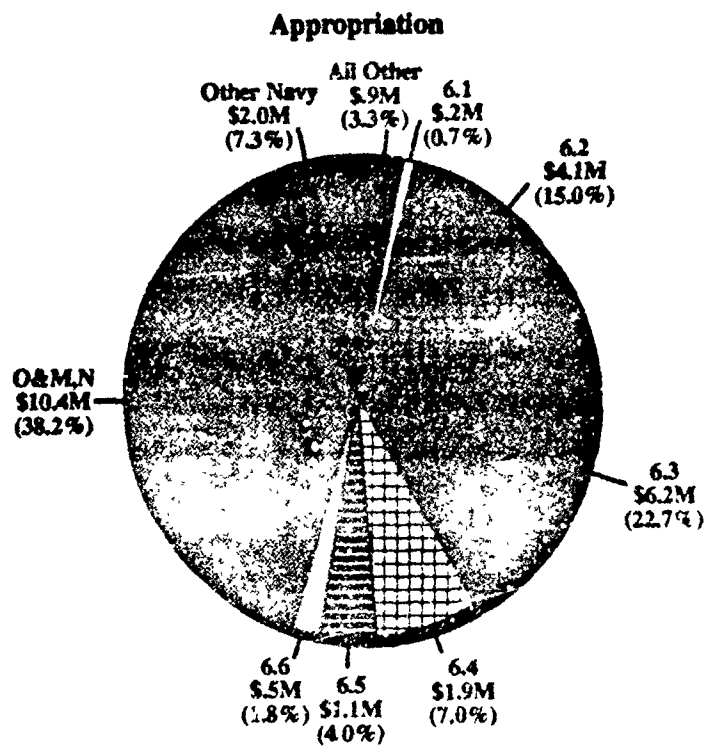
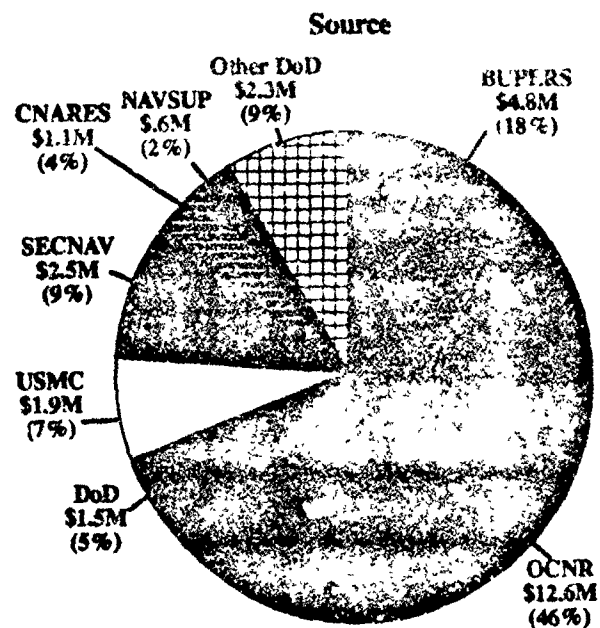


Figure 4. Funding by source and appropriation (\$27.3M, 30 September 1992).

Personnel

Because R&D programs at NPRDC are mission-oriented, it is essential that the research force be multidisciplinary so that early consideration may be given to alternative approaches in research endeavors. The Center's staff is creatively diverse and equipped to meet this prerequisite.

As of 30 September 1992, the staff numbered 17 military and 234 civilian personnel. Of the civilians, 159 are professional and technical personnel representing a variety of disciplines. Of the professional and technical staff, 78 percent hold advanced degrees. The military staff consists of line officers and senior enlisted personnel. The military personnel offer extensive fleet and subject-matter expertise that helps ensure the operational relevance of NPRDC's R&D endeavors. This broad personnel base allows NPRDC to maintain a highly effective, multidisciplinary team approach to its R&D.

Facilities

NPRDC is located on Point Loma in San Diego, CA, with support offices in Washington, DC. The Center occupies 16 buildings under a host-tenant arrangement with the Naval Command, Control and Ocean Surveillance Center, RDT&E Division (NRaD). In addition to office space for research and support personnel, the following research facilities are housed at the Center:

- **Training Research Computing Facility (TRCF)** provides general Unix-based computing services and access to the Defense Data Network for Center research and support staff. The facility is supported by the Training Technology Department and provides computational and electronic mail support for research in areas of artificial intelligence, computer-assisted instruction, cognitive science, testing, and training. The TRCF equipment suite includes two Digital Equipment Corporation VAX-11/780 computers and numerous peripherals.
- **Manpower and Personnel Computing Facility (MAPCOM)** provides general purpose IBM-based computing services for Center researchers and administrative operations. The facility is supported by the Manpower Systems Department. It is specially equipped to serve psychologists, economists, mathematicians, and computer scientists whose research requires the organization and analysis of large data files, the development of large-scale mathematical models, the design of information delivery systems, and general-purpose scientific computing. The MAPCOM features an IBM 4381/23, multiple tape drives, and over 25G in disk storage.
- **Systems Simulation Facility** serves cognitive and organizational psychologists who are concerned with the measurement of human performance, neuroscience applications in personnel readiness assessment, and motivation of people in organizations. It includes equipment for biopsychological and psychophysiological measurement.

The above facilities are supplemented by two mobile laboratories that provide R&D support at sites away from the Center, and by a large inventory of computer equipment supporting specific projects.

Research and Development Program

The R&D program at NPRDC addresses four functional areas: Manpower, Personnel, Training, and Organizational Systems. Within these four functional areas are 21 product lines, each of which has one or more projects.

Manpower

Develops new computer-based systems and methods for allocating manpower resources, developing personnel inventories, and distributing/assigning those inventories to improve military readiness and control costs.

- **Navy Force Management**—Designs/develops large-scale decision-support systems for managing the flow of personnel (accession, retention, promotion) to attain desired skill inventories within constraints of cost and feasibility, allocating manpower resources, and developing and executing manpower appropriations.
- **USMC Force Management**—Designs/develops systems to develop, evaluate, justify, and effectively execute USMC manpower plans and policies.
- **Assignment Systems**—Designs/develops systems for improving the assignment of officer and enlisted personnel to jobs (billets) given cost constraints, fleet requirements, individual preferences, and a wide variety of assignment policies.
- **Recruiting Systems**—Develops market analyses, supply projections, resource management models and systems to support accession policy and recruiting objectives.
- **Training Resources Systems**—Improves fleet readiness and cost-effectiveness of training assets by designing/developing methods for scheduling classes, reserving seats, monitoring bookings, and reallocating school seats.
- **MPT Information Support**—Develops advanced information systems architectures; database storage and retrieval technologies; and user interface designs for MPT applications.

Personnel

Develops and evaluates systems for personnel selection and classification testing, performance measurement, and person-job matching. Serves as the lead DOD laboratory for the development of a Computerized Adaptive Testing version of the Armed Services Vocational Aptitude Battery (CAT-ASVAB) and the Adaptability Screening Profile Program. Manages and performs R&D and scientific support for these and other programs including the Navy portion of the Joint-Service Job Performance Measurement Program and the operational paper-and-pencil ASVAB. Develops systems and procedures for recruiting, selecting, classifying, and utilizing officer and enlisted personnel to improve performance and retention.

- **Printed Testing**—Establishes and monitors Navy enlistment qualifications and school eligibility standards for the ASVAB. Develops biographical information instruments for use in enlisted personnel screening.
- **Computerized Testing**—Develops CAT-ASVAB as a replacement for the paper-and-pencil version of the battery. Includes development of new computerized ability tests which can be used to augment the battery.
- **Personnel Classification**—Develops job performance measures for use in validating selection and classification tests. Develops mathematical modeling procedures to assist in establishing recruit quality requirements and person-job matching techniques.
- **Officer Career Management**—Develops and applies new technology to match officer attributes and billeting requirements in a changing environment.
- **Drug Research**—Develops new methods for maximizing drug use deterrence while minimizing drug use detection costs.

Training

Develops training technologies to enhance personnel readiness. Employs existing and emerging technologies in the development and application of training systems to alleviate Navy training problems and to improve the Navy's operational readiness.

- **Operational Training**—Develops training programs to support specific operational weapons systems including enhancements to existing programs and application of emerging training technologies to these systems.
- **Schoolhouse Training**—Develops content specific instructional materials and processes designed to enhance the effectiveness and lessen the cost of the delivery of formal Navy schoolhouse instruction.
- **Neurosciences**—Develops and evaluates technologies to assess and enhance performance and training procedures using neuroscience, neural network, and behavioral approaches. Performs R&D for improved assessment of human capabilities, including sensory and cognitive processing, skill development and retention, real-time monitoring, and on-job performance prediction.
- **Curriculum Acquisition, Development, and Revision**—Develops, tests, and evaluates systems designed to support the development of curriculum materials. These include automated systems designed to support instructor delivered training materials and systems for computer delivered training materials.
- **USMC Training**—Develops prototype training programs to support unique Marine Corps applications. These include materials supporting either basic schools or operational units.

Organizational Systems

Develops and evaluates performance enhancement and control systems for improving the effectiveness, quality, and productivity of Navy personnel and organizations. Develops approaches for managing a diverse work force. Serves as the Chief of Naval Operations' primary personnel survey resource to coordinate and conduct attitude surveys in the Navy and Marine Corps and to develop new survey technology.

- **Management Control Systems**—Performs needs analyses for the purpose of diagnosing problems with existing systems used for cost, quality, production control, and improvement. Determines appropriate enhancements to such systems and provides models for system development. This frequently includes design, development, and evaluation of management training for quality and productivity improvement.
- **Incentive Systems**—Determines feasibility, design, development, test, and evaluation of incentives in Navy organizations. This includes monetary and nonmonetary applications for individual, group, and organization. Nonmonetary types include performance measurement, feedback, goal setting, time off, suggestion systems, employee involvement, and job redesign.
- **Organizational Systems Evaluation**—Includes diagnostics of organizations, their designs, functions, and "climate" or culture. Also includes evaluation of programs that have aimed to change these factors.
- **Survey Research**—Develops systems to improve the quality and timeliness of personnel survey data.
- **Women and Multicultural Research**—Investigates issues associated with a racial-, ethnic-, and gender-mixed active duty and civilian work force.

Other research efforts include developing and testing innovative methods to design, administer, and evaluate management and professional training. In addition, job aids are developed and tested to determine their effects on workload accomplishment.

Fleet Liaison Office

In addition, NPRDC has set up a Fleet Liaison Office (FLO) to maintain liaison with Fleet Commands, Type Commands, Systems Commands, CNO Agencies, and R&D Centers in matters related to NPRDC's mission areas, and serves as the Center's focal point for investigating and responding to requests for technical assistance. It monitors on a continuing basis operational problems, requirements, and priorities to determine RDT&E implications, provides on-site consultative services to operational commands and performs quick-reaction studies or special projects as needed and facilitates the implementation of the Center's R&D products. Also, the FLO serves as the Center's agent for the Navy Science Assistance Program.

Technical Accomplishments¹

Navy-Wide Personnel Survey (NPS) 1990

The Chief of Naval Personnel commissioned the *Navy-Wide Personnel Survey (NPS) 1990* to collect data on the opinions and perceptions of Navy enlisted and officer personnel. The survey, which will be administered annually, was designed to provide policy makers with personnel feedback on a variety of key issues. Six NPRDC Technical Notes (TNs) summarized the results in two different ways, statistically and analytically.

Dr. Gerry Wilcove was the principal author for the NPS 1990 analytical results in two TNs. The TNs authored by Dr. Wilcove provided data on vital Navy personnel issues, such as rotation and permanent change of station moves, pay and benefits, and quality of life programs. In addition to multiple choice items, NPS 1990 included sections that permitted respondents to submit written comments on each of the areas covered by the survey. One TN summarized survey data results on voluntary off-duty education, leadership training, and "A" schools. The other TN presented and interpreted examples of survey comments to help promote empathy with and understanding of the individual officer and enlisted person that cannot be provided by statistics alone.

This information is being used by the Bureau of Personnel Program Managers (PMs) to evaluate and improve their programs. In addition, PMs will use this information to plan new programs to improve the quality of life of Naval personnel.

Navy Equal Opportunity and Sexual Harassment (NEOSH) Survey

The *Navy Equal Opportunity and Sexual Harassment (NEOSH) Survey* is a biannual assessment of the Navy's equal opportunity (EO) climate and the occurrence of sexual harassment. The EO climate is assessed in nine content areas: assignments, training, leadership, communications, interpersonal relations, grievances, discipline, performance evaluation, and satisfaction with the Navy. The second half of the NEOSH Survey focuses on forms and frequency of sexual harassment among active-duty Navy personnel. Military personnel (E-2 through O-6) supply the information for this assessment. The information gathered in the first two administrations (1989 and 1991) of the NEOSH Survey have provided baseline information against which future assessments can be compared.

Paul Rosenfeld was the principal investigator of NEOSH. *Amy Culbertson*, *Stephanie Booth-Kewley*, and *Paul Magnusson* contributed significantly to the NEOSH Survey. Findings from the NEOSH Survey provide policy-makers with an empirical method for monitoring and continually

¹ The Technical Director awards individuals and work teams for exemplary technical accomplishment contributing to the Center mission. As an applied research center, NPRDC's principal goal is to apply state-of-the-art technology to solve emerging problems affecting Navy and Marine Corps personnel readiness. The attainment of this goal is manifested in tangible products of operational use to Navy and Marine Corps commands. The focus of this special Technical Director award is on those exemplary technical accomplishments that result in products of significant value to particular user commands.

improving Navy EO policy. Survey results were briefed to the Chief of Naval Operations, the Chief of Naval Personnel, and the Bureau of Personnel (PERS-6), the Department of Pride, Professionalism, and Personal Excellence. Undersecretary J. Daniel Howard was provided with NEOSH Survey results and survey data were quoted in numerous publications and newspapers.

Compensatory Screening Model for Navy Non-High School Diploma Graduate Applicants

A new enlistment screening method, the *Compensatory Screening Model (CSM)*, is being used for determining enlistment eligibility for non-high school diploma applicants to the Navy. The CSM, developed by *Tom Trent, Steve Devlin, John Folchi, and Stu Sunderman*, uses seven verifiable background and aptitude test items to estimate the probability that an applicant will complete first-term enlistment.

CSM focuses on the following key areas: employment status, years of school completed, education credentials, mental aptitude category, age at enlistment, youth military programs participation, and criminal record. By incorporating these factors, CSM provides a better measure of a person's adaptability to the military, which will help the Navy tap into the 25 percent of our nation's youth population that drops out of high school. The members of this non-graduate applicant pool who score the highest on the CSM complete their service contracts at a rate similar to that of high school diploma graduates.

NPRDC is the Executive Agent for the Joint Service CSM Program. Each of the Armed Services is presently considering the CSM approach to enlistment screening. The Navy has implemented the CSM under a two-year operational test and evaluation. Two hundred, thirty-two non-high school diploma graduates were contracted to sign up in July 1992.

Defense Acquisition Workforce Improvement Act (DAWIA) Congressional Reports

Congressional interest in improving weapons system acquisition efficiency has focused on selecting, training, and assigning professional acquisition personnel. Oversight by Congress requires frequent reports from the Services on the status of the acquisition workforce. An NPRDC research program that tracks Navy acquisition workforce career management information has helped the Assistant Secretary of the Navy (Acquisition) successfully meet mandated reporting requirements.

Dennis Schurmeier, Valerie Hall, and Judith Dudley developed an acquisition workforce management information system (MIS) that has helped the Navy comply with the requirements of the *Defense Acquisition Workforce Improvement Act (DAWIA)*. The MIS provides the Director, Acquisition Career Management (DACM) under the ASN (Acquisition) standardized information and policy analysis capabilities to monitor workforce content and change. When completed, the MIS will also coordinate the planning, budgeting, and administration of the education and training of the acquisition workforce. During the initial stages of development, the DAWIA MIS was used to produce the first set of Congressional reports. OSD was so pleased with the Navy's submission that it sent the reports to the other Services as a good example.

CAT-ASVAB Operational Test and Evaluation (OT&E) System

CAT-ASVAB is a Joint-Service Program. The Department of the Navy is the Executive Agent, the Navy is the Lead Service, and NPRDC is the Lead R&D Laboratory. Personnel responsible for the development of the CAT-ASVAB system include (alphabetically): *Dennis Cheng, Anthy Dunlap, Al Gallegos, Joe Graf, Becky Hetter, Gloria Jones-James, Kathleen Moreno, Dorothy Pakus, Bernie Rafacz, Amado Santiago, Dan Segall, Vincent Unpingco, Frank Vicino, and Elizabeth Wilbur.*

Their efforts include psychometric development and evaluation; hardware procurement; and software development, test, and evaluation. CAT-ASVAB is being implemented for operational use in testing military applicants in five Military Entrance Processing Stations (MEPS) throughout the country. Recently, CAT-ASVAB was installed and is now being used at the MEPS in San Diego, Los Angeles, and Jackson, MS.

The CAT-ASVAB sponsor is the Office of the Assistant Secretary Defense (Force Management and Personnel). Once CAT-ASVAB becomes fully operational for the selection and classification of all military recruits, the following benefits are expected: (1) reduced administrative burden of testing, (2) improved scoring accuracy and score availability to recruiters, (3) increased measurement precision, (4) reduced test compromise potential, (5) increased examinee motivation, and (6) an enhanced, high-technology image for military recruiters.

Courseware Portability

Computer-based instruction is increasingly being used to deliver training in almost all military subject areas. In the military, computer-based instruction is called interactive courseware (ICW). The lack of portability of ICW within DOD and from DOD to civilian training caused the Office of Assistant Secretary of Defense for Force Management and Personnel (OASD FM&P) to sponsor research to identify solutions.

Portability standards for the development and acquisition of ICW provide for the use of ICW on the complete range of available off-the-shelf hardware, and will provide for the continued use of today's ICW on future hardware.

Walt Thode, through his efforts within the *Portable Courseware (PORTCO)* project, has contributed to the establishment of a standard virtual device interface between ICW and the hardware on which it is delivered. This PORTCO standard interface was incorporated into the Military Standard for Training Programs, MIL-STD-1379D, and was mandated by DOD Instruction 1322.20 and OPNAV Instruction 1500.73. In this way, portability was achieved within the MS-DOS environment. Work on a related project will extend the notion of ICW portability to other computer operating systems, and to networked ICW systems.

OASD FM&P continues to sponsor this research; participating organizations include the National Institute of Standards and Technology, the Naval Training Systems Center, and the Interactive Multimedia Association.

Enhanced Selective Reenlistment Bonus Planning Model

The Enlisted Planning System (EPS) is a series of integrated computer models, a user interface, and a supporting database which provides USMC manpower planners with the capability to produce required manpower plans, perform "what-if" exercises, and monitor plan execution. These models assist the planners in justifying the USMC manpower appropriation.

Carol Mullins is the principal investigator for the newest component of the EPS, the *Selective Reenlistment Bonus (SRB) Planning Model*. The present, "enhanced" version of the model optimally allocates SRB budget across all Military Occupational Specialties (MOSs) and reenlistment zones. Alternatively, the model calculates the cost of a SRB Plan specified by the user. In either case, the model attempts to maximize the number of MOSs which are manned to at least 95 percent of the requirement.

The current version of the SRB Planning Model with additional enhancements will migrate to a PC this fiscal year. The model replaces what was previously a manual, time consuming task and provides the Enlisted Incentives Officer with the capability to: (1) develop alternative SRB Plans, (2) create "what-if" gaming scenarios for applying SRB multiples, (3) monitor the execution of the SRB Plan during the fiscal year, and (4) modify the SRB Plan during the year based on execution of the Plan to date.

Fundamentals of TQL Course

Total Quality Leadership (TQL) is a management system based, primarily, on the W. Edwards Deming theory of management. TQL focuses on quality leadership, i.e., meeting the needs of the customer (end user), helping people perform their jobs more efficiently and effectively, working more closely with suppliers, and the application of quantitative methods for continuous process improvement.

Total Quality Leadership requires a top-down approach. In that spirit, the DON Executive Steering Group (ESG) requested NPRDC to develop a course to provide senior leaders with the knowledge of how to begin implementing the total quality approach in their organizations.

The result of that request is the *Senior Leaders Seminar*, designed for commanding officers and senior civilian leaders of shore-based organizations that serve the operational commands. The Senior Leaders Seminar is the "flagship" course for TQL education and training in the DON. *Steve Dockstader, Mike Flaningam, Paula Konoske, Samuel Landau, Daira Paulson, Carolyn Shaw, Chan Shumate, Prentice St. Clair, Barbara Tarker, and Judy Wasik* each contributed to the development of this course.

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² Unclassified, public release only.

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- Sheposh, J., & Dutcher, J. (1992, October). *Performance appraisals: An employee perspective*. Paper presented at the 34th Annual Conference of the Military Testing Association, Del Mar, CA.
- Shoecraft, M. (1992, April). *Forecasting Navy support manpower from force levels*. Paper presented at The Institute of Management Sciences/Organizational Research Society of America Joint National Meeting, Orlando, FL.
- Silverman, J. (1992, April). *ECO: An enlisted inventory model in four dimensions*. Paper presented at The Institute of Management Sciences/Organizational Research Society of America Joint National Meeting, Orlando, FL.
- Simpson, H. (1992, October). *Empirical comparison of alternative instructional TV technologies*. Paper presented at the 34th Annual Conference of the Military Testing Association, Del Mar, CA.
- Sorenson, S. W., & Charnes, A. (1992, April). *A model for the Navy's awaiting instruction problem*. Paper presented at The Institute of Management Sciences/Organizational Research Society of America Joint National Meeting, Orlando, FL.
- Tatum, B. C., & Nebeker, D. M. (1992, April/May). *Computerized monitoring of performance under different levels of system control and reporting error*. Paper presented at the 6th Annual Conference of the Society of Industrial and Organizational Psychology, Montreal, Quebec.
- Tatum, B. C., & Nebeker, D. M. (1992, June). *The effects of system control and feedback errors on performance and affective reactions*. Paper presented at the 4th Annual Convention of the American Psychological Society 4th Annual Convention, San Diego, CA.
- Thode, W. F. (1992, November). *Portability of software*. Paper presented at the 14th Interservice/Industry Training Systems and Education Conference, San Antonio, TX.
- Thomas, M. D. (1992, February/March). *Pregnant enlisted women in the Navy Work Center*. Paper presented at the Association for Women in Psychology Conference, National Feminist Psychology Conference, Long Beach, CA.
- Thomas, M. D. (1992, August). *Navy women and pregnancy: Misinformation and legitimate issues*. Paper presented at the American Psychological Association Conference, Washington, DC.

- Thomas, P. J. (1992, February/March). *Women in combat: What are the issues*. Paper presented at the Association for Women in Psychology Conference, Long Beach, CA.
- Thompson, T. J., & Boyle, J. P. (1992, April). *Probability of detection*. Paper presented at the Tri-Service Laboratory Managers' meeting, San Antonio, TX.
- Thompson, T. J., & Boyle, J. P. (1992, June). *Models for drug testing*. Paper presented at the Military Operations Research Society Conference, Monterey, CA.
- Trejo, L. J. (1992, June). *Event-related potentials as real-time indices of performance quality in signal detection, running memory, and computation*. Paper presented at the 4th Annual Convention of the American Psychological Society, San Diego, CA.
- Trejo, L. J., Ryan-Jones, D. L., & Woldorf, M. (1992, April). *Mismatch negativity: Effects of selective attention*. Paper presented to the ERP Laboratory, Department of Neurosciences, University of California, San Diego, CA.
- Trejo, L. J., Ryan-Jones, D. L., & Kramer, A. F. (1992, October). *Attentional modulation of the pitch-change mismatch negativity*. Paper presented at the 32nd Annual Meeting of the Society for Psychophysiological Research, San Diego, CA.
- Trejo, L. J., Kramer, A. F., & Humphrey, D. (1992, October). *Differential workload sensitivity of early and late components of the auditory probe ERP*. Paper presented at the 32nd Annual Meeting of the Society for Psychophysiological Research, San Diego, CA.
- Vicino, F. L. (1992, October). *CBT: The time has come*. Paper presented at the 34th Annual Conference of the Military Testing Association, Del Mar, CA.
- Vicino, F. L. (1992, October). *FINIS CORONAT OPUS*. Paper presented at the 34th Annual Conference of the Military Testing Association, Del Mar, CA.
- Wilbur, F. R., Moreno, K. E., & Hetter, R. D. (1992, October). *The operational test and evaluation of computer-based testing*. Paper presented at the 34th Annual Conference of the Military Testing Association, Del Mar, CA.
- Wolfe, J. (1992, August). *Navy technical school validity of the new predictor battery*. Paper presented at the American Psychological Association Conference, Washington, DC.
- Wolfe, J., & Alderton, D. L. (1992, October). *Navy incremental validity study of new predictors*. Paper presented at the 34th Annual Conference of the Military Testing Association, Del Mar, CA.

Significant Events

January

☐ **Black History Month**

A PROFNET videoconference presentation for Black History month was held on 15 January.

February

☐ **Distinguished Center Visitors**

Dr. Henk Ruck
Chairperson, Joint Services Technical Coordinating Group (Training Systems)
Armstrong Laboratory

RADM William Hauenstein USN (Ret)
Director of Acquisition Career Management
Office of the Assistant Secretary of the Navy (Research, Development and Acquisition)

March

☐ **Distinguished Center Visitors**

VADM Timothy Wright (Select)
Commander Seventh Fleet, U.S. Pacific Fleet

RADM Joseph Dantone, Jr.
Commander Carrier Group THREE, U.S. Pacific Fleet

CAPT Pat Moneymaker
Commander Carrier
Air Group (CAG) 14

☐ **Guest Speaker**

Susan Simpson, Lt. Colonel, U.S. Army (Reserve), spoke on "Nursing Care in the Persian Gulf" in observance of National Women's History Month.

☐ **Organizational Change**

Training Systems (Code 14) and Training Technology (Code 15) were merged into one code, Training Research (Code 13). The new Training Research Department (Code 13) brings together the product lines, projects and staff of the Center's Education and Training

functional area. The change consolidates management and supervisory functions and allows deployment of technical expertise to RDT&E programs.

April

☐ **Distinguished Center Visitors**

Mr. Hugh E. Montgomery, Jr.
Director, Science and Technology Requirements Division
Office of Chief of Naval Operations (OP-911)

Dr. James DeCorpo
Director, Office of Advanced Technology
Office of the Chief of Naval Research

CAPT J. C. Kinney
Head, Enlisted Accessions and Retention Plans and Policy Branch
Bureau of Naval Personnel

Dr. Cleason Martin
Headquarters, DoD Coordination Branch (BUPERS 234)
Bureau of Naval Personnel

Charley McPeters
Technical and Financial Support (PERS-01JJ2)
Bureau of Naval Personnel

- ☐ **NPRDC closed its office in Ballston Centre Tower #3, Washington DC.**

May

☐ **Distinguished Center Visitors**

RADM William P. Houley
Deputy Director, Navy Test and Evaluation and Technology Requirements
Office of Chief of Naval Operations (OP-091B)

Mr. Ron Vaughn
Director, Science and Technology Planning
Science and Technology Requirements Division
Office of Chief of Naval Operations (OP-0911C)

CAPT Ross Hansell, USN
Manpower Requirements and Authorization Division
Chief of Naval Personnel (PERS-51)

CAPT John B. Foley III, USN
Chief of Staff, Naval Military Personnel Command
Deputy Chief of Naval Personnel (CP-01BA)

Dr. Wolfgang Weber
Head Psychological Services
Regional Military Administration Office II
Federal Republic of Germany

Dr. Rolfe Otte
Senior Psychologist of Basic Research and Selection
Central Personnel Office in Koeln (Cologne) 90
Federal Republic of Germany,

CAPT Francois Lescreve
Head, Technical Staff
Centre of Recruitment and Selection
Belgian Armed Forces

- ☐ Code 02, NPRDC's comptroller's offices moved from Building 333 to Building 304.
- ☐ The Center began construction on a 4,000 square foot Technical Equipment Processing Facility. The facility will be the new "home" for the Property Management Division, which formerly occupied two trailers and several cargo containers.

June

☐ Distinguished Center Visitors

Dr. Carl J. Dahlman
Deputy Assistant Secretary (Requirements and Resources)
Assistant Secretary of Defense (Force Management and Personnel)
Office of the Secretary of Defense

Mr. Daniel Gardner
Readiness and Training Directorate
Office of the Secretary of Defense

Mr. Michael Parmentier
Readiness and Training Directorate
Office of the Secretary of Defense

VADM Frank Gallo
Deputy Chief of Naval Personnel
Bureau of Naval Personnel

Mr. Tommie Gregg
Headquarters, Information Management Division (PERS-09)
Bureau of Naval Personnel

Mr. Richard Mackay
National Archives and Records Administration

July

- ☐ The Naval Supply Center (NSC) which processes payroll checks no longer provided NPRDC with payroll assistance. Centralization of payroll was a major Defense Management Review (DMR) consolidation effort. Effective pay period 26 July 1992, former NSC payroll recipients were paid through the Defense Finance and Accounting Service, Denver, CO.

- ☐ NPRDC Hosted Conferences

The 1992 Independent Research/Independent Exploratory Development (IR/IED) On-site Review was held on 16 July 1992.

- ☐ Training and Personnel Systems Science and Technology Evaluation and Management (TAPSTEM) Committee

In July 1992, CAPT Finley was designated the Secretariat Chair for the Armed Services TAPSTEM committee. TAPSTEM is the recognized integrating mechanism responsible for implementation and verification of compliance with Reliance objectives in Manpower and Personnel and Training Systems technology areas. The goals of the TAPSTEM committee are to facilitate management coordination, improve information exchange and accomplish training and personnel systems science and technology activities pertinent to the missions of the Army, Navy, Marine Corps, and Air Force.

Under CAPT Finley's leadership, TAPSTEM continued the process of relocating personnel to realize Reliance objectives. Selective collocation permits the services to leverage resources to achieve increased effectiveness and efficiency in service resource use and to address organizational goals and resolve service organizational/functional alignment issues. Personnel transferred under the services' collocation plan continue to work in their assigned technology area at the service site designated as the technology lead Center/Laboratory.

October

- ☐ J. Edwards replaced Pat Thomas as NPRDC's Science Advisor to the Chief of Naval Personnel beginning a six-month tour.

- ☐ Dr. Phil Gillis, reported to NPRDC from Fort Gordon, GA and Dr. David Johnson reported from Fort Bliss, TX as part of the Armed Services Training and Personnel Systems Science and Technology Evaluation and Management (TAPSTEM) research exchange program.
- ☐ Outstanding Enlisted Personnel for 1992. The Greater San Diego Chamber of Commerce awarded YN1 Patrick I. Polus for his outstanding citizenship, superb leadership, and exemplary performance of duty. A certificate of appreciation was presented to YN1 Polus during the Annual Salute to Military Forces and Their Families.
- ☐ NPRDC Hosted Conferences

NPRDC hosted the Interlaboratory Committee on Editing and Publishing (ILCEP) meeting, 7-8 October 1992. Senior editors and publishers from the Warfare Centers, Defense Technical Information Office, Office of Naval Technology, Defense Printing Service, Naval Research Laboratory, and other Navy agencies attended.

NPRDC coordinated and hosted the 34th Annual Military Testing Association (MTA) Conference in San Diego from 26-29 October 1992.

November

- ☐ Distinguished Center Visitors

CAPT Francois Lescreve
Head, Technical Staff
Centre of Recruitment and Selection
Belgian Armed Forces

Reece Polmear
Squadron Leader
Royal Australian Air Force

Simon Kelly
Squadron Leader
Royal Australian Air Force

- ☐ BUPERS Inspector General (IG) review was held 2-6 November. This IG review is held every 3 years to inspect major command operating functions within the Command. NPRDC received an overall evaluation of *Satisfactory*. "NPRDC is a well run organization that is meeting its mission requirements."
- ☐ Change of Command

CAPT John D. McAfee relieved CAPT Thomas F. Finley, Jr, on 19 November 1992.

Personnel Changes

Promotions

Month	Name	Title
February	Plaridel MA Bautista	Supervisory Supply Technician, Code 02 GS-2005-09
March	Danette A. Cranstoun	Management Resources Assistant, Code 01 GS-303-08
	Linda L. Turnmire	Computer Specialist, Code 11C GS-334-12
July	Rosary F. Enad	Computer Specialist, Code 04 GS-334-11
	Donald H. Hewitt	Personnel Research Psychologist, Code 13 GS-180-12
	Mary A. Quenette	Personnel Research Psychologist, Code 16 GS-180-12
	Richard A. Riemer	Personnel Research Psychologist, Code 16 GS-180-12
August	Carol A. Evans	Student Trainee Code 04 GS-399-04
	Renee J. Rothlein	Computer Specialist, Code 12 GS-334-03
September	Charles W. John	Personnel Research Psychologist, Code 12 GS-180-12
October	Christina A. Reese	Secretary, Code 12 GS-318-06
December	Dennis Schurmeier	Supervisory Operations Research Analyst GM-1515-14

New Employees

Month	Name	Title
January	Roger Zobel	ADP Security Officer, Code 00D DPC E-7
March	Thenia V. Surney	Computerized Equipment Inventory, Code 02 DP2 E-5
May	Walter P. Rudolph, Jr.	Operations Research Analyst (Expert), Code 01F GS-180-00
	Harriett A. "Dusty" Porter	Division CPO/Safety Officer, Code 03 PNC E-7
	Rosemary A. Villarin	Budget Analyst, Code 02 GS-560-11
September	Jeffrey D. Houston	Personnel Research Psychologist, Code 16 GS-180-11
	John P. Craiger	Personnel Research Psychologist, Code 16 GS-180-12
October	Ana F. Guerrero	Office Automation Assistant, Code 16 GS-326-05
	John D. McAfee	Commanding Officer, Code 00 CAPT O-6
November	Dale N. Glaser	Student Trainee (Psychology), Code 16 GS-199-09
	Amy S. Rudolph	Student Trainee (Psychology), Code 16 GS-199-09
	Fred R. Holding	Research Assistant, Code 01E OSCS E-8

Retirements

Month	Name	Title
April	Ramona E. Mouzon	Equal Employment Specialist, Code 03 GS-260-11
May	Harry B. Conner	Personnel Research Psychologist, Code 13 GS-180-13
June	James W. Warrington	Supervisory Computer Specialist, Code 11 GS-334-14
	Scott W. Lawrence	Security Officer, Code 00D FCCM E-9
August	Rachel G. Dalton	Technical Publications Editor, Code 04 GS-1083-09
	Kirk A. Johnson	Personnel Research Psychologist, Code 13 GS-180-13
	Robert P. Thorpe	Operations Research Analyst, Code 01A GS-1515-14
	Michael J. Bacci	Division CPO/Safety Officer, Code 00 PNC E-7
September	Robert F. Turney	Military Personnel Research Specialist, Code 04 GS-205-12
December	John A. Malorie	Operations Research Analyst, Code 13 GS-1515-13

Separations

Month	Name	Title
January	Lewis R. Gollub	Personnel Research Psychologist, Code 12 GS-180-12
	James B. Simpson	Personnel Research Psychologist, Code 13 GS-180-12
February	Gwendolyn K. Jones	Management Resources Assistant, Code 12 GS-303-07
	Mary K. Knodle	Secretary (Typing), Code 12 GS-318-06
	Dawn A. McConnell	Technical Research Assistant, Code 13 DPC E-7
March	Susan D. Newhouse	Data Processing Technician, Code 02 DPI E-6
April	Thomas L. Diamond	Personnel Research Psychologist, Code 16 GS-180-12
	Tamara S. Smith	Clerk, Code 00 GS-399-02
May	Gary L. Spurr	Computer Specialist, Code 11 GS-334-12
June	Elizabeth Rozycki	Economist, Code 11 GS-110-12
July	Carol A. Hayashida	Program Analyst, Code 16 GS-343-12
	Monica Santiago	Student Trainee (Clerk Typist), Code 00 GS-322-03
	Charles A. Wilkins	Personnel Research Psychologist, Code 12 GS-180-12
September	Manuel L. Downs	Mail Clerk, Code 03 YN2 E-5
	David L. Alderton	Personnel Research Psychologist, Code 12 GS-180-12
October	James M. Apple	Computer Specialist, Code 13 GS-334-12
	Angela C. Bitter	Secretary (Typing), Code 16 GS-318-05

Death

EWC Michael D. Pfaff, Research Assistant (Code 13) died on 13 October 1992.

American Society for Engineering Education (ASEE) Summer Faculty Research Program

Visiting summer faculty members included: Jack Aiello (Rudgers University); Maurice St. Pierre (Morgan State University); Allen Wicker (Claremont Graduate School); Carolyn Heising (Northeastern University, Boston); George Semb (University of Kansas); Waymond Rogers (University of California, Riverside); Pamela Kidder (San Diego State). In addition, NPRDC hosted the following graduate students through the American Society for Engineering Education (ASEE) Program: Urmi Bhattacharga; Nicolle Ellis, and Anke Richter all from Stanford University.

Awards

Length of Service

Month	Time	Recipient(s)
January	35 years	Plaridel MA Bautista
	30 years	Charles Bigsby, Joe Silverman, John Wolfe
	25 years	Marian Esser, Orvin Larson, William Montague
	20 years	Wolfgang Milczewsky, Sandra Wetzel-Smith
	15 years	Jules Borack, Leonard Kroeker, Thomas Trent, Barbara Morris, Carol Hayashida, Samuel Landau
	10 years	Kevin McCabe
June	45 years	David Robertson
	35 years	Robert Thorpe
	30 years	Ray Main
	25 years	Rachel Dalton, William Sands, Patrick McCann, Jeffery Gordon, Walter Thode, Chandler Shumate
	20 years	Bart Kuhn, Stuart Sunderman, John Ellis
	15 years	Sharon Brooks
	10 years	Susie Hollingsworth, Kim Vetter, Gary Ropp, Joseph Joy, Jerry Larson, Muriel Baker

Professional Publications

Award Placing	Recipient(s)	Report Title
First	Gerald E. Larson	"Can Accidents be Predicted? An Empirical Test of the Cognitive Failures Questionnaire" published in <i>Applied Psychology: An International Review</i> .
Second	Gerald E. Larson David E. Alderton	"Dynamic Administration of a General Intelligence Test" published in <i>Learning and Individual Differences</i> .
Third	Barbara Taylor John E. Ellis	"An Evaluation of Instructional Systems Development in the Navy" published in the <i>Educational Technology Research and Development Journal</i> .
	Stephen W. Sorenson	"Rule Induction for Group Decisions with Statistical Data, an Example" published in <i>Journal of the Operations Research Society</i> .

Military

Award Title	Recipient(s)	Month
Navy Commendation Medal	LCDR Gene A. LeDuc	January
	AWCS Garry D. William	March
	RT1 David Q. Dapliyan FC1 Brian O'Hara DS2 Marc Madison	November
Individual NPRDC EEO Award	BT1 David Q. Dapliyan	February
Navy Achievement Medal	FCCM Scott W. Lawrence	March
	DP2 Thenia V. Surney	
Good Conduct Awards	PNC Harriet A. Porter	July
	STSCS Jack D. Banks	
Outstanding Enlisted Personnel for 1992 ¹	YN1 Patrick I. Polus	October

¹A Certificate of Appreciation was presented to YN1 Polus during the Annual Salute to its Military Forces and Their Families by the Greater San Diego Chamber of Commerce. He was awarded for his outstanding citizenship, superb leadership, and exemplary performance of duty

Other

Award Title	Recipient(s)	Month
Group NPRDC EEO Excellence Award	Code 04 staff members (Marc Barrineau, Rachel Dalton, Char-Lu Dinger, Faith Enad, Carol Evans, Donna Even, YN2 Manuel Downs, Carmen Fendelman, Tina Hall, Deb Hanson, Susie Hollingsworth, Jim Julius, Annette Stout, Gene Stout, ET1 Mitch Tanner, Robert Turney, Ted Yellen)	February
The American Mensa Education and Research Foundation Award for Excellence in Research	Gerry E. Larson Based on a journal article entitled "Cognitive Correlates of General Intelligence: Toward a Process Theory of 'g'"	April

Appendix A

On-Site Research Applications

Manpower

Project	Implemented Product	Site
Advancement Interface System (ADIN)	Petty officer advancement planning model	Bureau of Naval Personnel (BUPERS) (PERS-222C)
Force Analysis Simulation Technique (FAST)	Enlisted inventory projection model	BUPERS (PERS-22A)
Obligated Service Contract Analysis Report (OSCAR)	Retention and retirement forecasting model	BUPERS (PERS-22)
Structured Accession Planning System for Officers (PCSTRAPO)	Officer manpower analyses system	BUPERS (PERS-21)
Officer Personnel Information System (OPIS)	Officer information delivery system	BUPERS (PERS-21), (PERS-23)
Enlisted Nomination Modeling	Computer-enhanced Detailing and Distribution (CEDAD)	BUPERS (PERS-40)
Permanent Change of Station (PCS)/Readiness Impact	PCS moves/unit readiness model	BUPERS (PERS-46)
Recruiting Effectiveness	Recruiting Information Delivery System (RIDS)	Naval Recruiting Command, BUPERS (PERS-23)
Recruiting Resource Allocation	Recruiting Resource Allocation Model (RAM)	Naval Recruiting Command, BUPERS (PERS-23)
Sea/Shore Rotation Management System	Sea shore rotation modelling system (COURTNEY)	BUPERS (PERS-221)
Budget Obligation Analysis and Tracking System (BOATS)	PCS expenditure IDS/overseas station allowance impact model	BUPERS (PERS-71)
	Manpower budget execution management system	BUPERS (PERS-7); DFAs, Cleveland, OH
Joint Specialty Officer (JSO)	JSO Information Delivery System (JIDS)	BUPERS (PERS-45)
	JSO Management System (JSOMS)	BUPERS (PERS-45)
Enlisted Force Distributable Inventory	Skill Personnel Projection For Enlisted Rotation (SKIPPER)	BUPERS (PERS-221)
	Enlisted management community manning report system (Mira-STATSUM)	BUPERS (PERS-221)
Enlisted Force Distributable Inventory (Continued)	Enlisted Navy career options for retention (ENCORE)	BUPERS (PERS-221)

Project	Implemented Product	Site
Officer Distribution Management System (ODMS)	Accession planning system	BUPERS (PERS-221)
	Enlisted management communities algorithm	CNO (OP-132C)
	Women in the Navy (WIN)	BUPERS (PERS-221)
	User/system documentation for ODMS	BUPERS (PERS-47), (PERS-454)
	Officer Navy manning plan and officer distribution projection system moved to production region of PERS-47 computer	BUPERS (PERS-47), (PERS-454), Placement Officers
	Design for expansion of ODMS restricted line, limited duty, and, chief warrant officers	BUPERS (PERS-454)
	Officer distributable projection system	BUPERS (PERS-45)
Total Force Manpower Trade Offs	Navy manning plan officer/officer manning information system	BUPERS (PERS-45), (PERS-41), (PERS-42), (PERS-43), (PERS-44)
	PC-programmed manpower authorizations system	BUPERS (PERS-52)
	Tooth to tail analysis	BUPERS (PERS-52)
	General duty billet allocation model	BUPERS (PERS-52)
PCS Moves Forecasting	PCS moves forecasting model	BUPERS (PERS-73)
U.S. Marine Corps (USMC) Enlisted Planning System	Inventory projection model/manpower planning model/selective reenlistment bonus planning model/promotion planning model	HQMC (MPP-20)
Defense Acquisition Work Force	Defense Acquisition Work Force Improvement Act (DAWIA) Management Information System	ASN (RDA) (DACM)
Training Resources Management (TRAINTRACK)	"C" school planning systems	BUPERS (PERS-22); Chief of Naval Technical Training (CNTT)
	TRAINTRACK	N-7, BUPERS (PERS-2, PERS-4); Navy Training Systems Center (NAVTRASYSSEN); CNTT, Chief of Naval Education and Training (CNET); Training Command, Atlantic Fleet
Officer Assignment Decision Support System	Officer assignment	HQMC (MM), (MMOA-3)

Personnel

Project	Implemented Product	Site
Officer Selection Systems	Maintain/evaluate selection system	U.S. Naval Academy
Navy Occupational Data System Leadership Survey	Design of officer leadership training needs analysis	CNO (OP-152)
Experienced-based Learning	Assessment of Naval Operations (NAVOP) NAVOP-105 policy	CNO (OP-13)
Classification and Assignment Within PRIDE (CLASP) ^a	Maintain/evaluate classification and assignment system	BUPERS (PERS-291)

^aPersonalized Recruiting for Immediate and Delayed Enlistment (PRIDE).

Training

Project	Implemented Product	Site
Career Systems Design	Rating continuum design methodology	CNO (OP-111)
USMC Individual Training Standards	Development of training standards for over 200 military occupational specialties	Marine Corps Control Combat Development Command (MCCDC)
Helo Map Interpretation and Terrain Association Course (MITAC)	Improvement of pilot navigation skills	USMC Squadrons
Infantry MITAC	Improved map interpretation for USMC ground combat personnel	Officer Basic School, Quantico; Division Schools, Camps LeJeune, Pendleton
Intelligent Maintenance Training System	Training of SH-3H, AE, and AD maintenance personnel	Naval Aviation Maintenance Training Group, North Island
Steam Propulsion Plant Operator Training System (STEAMER)	Training aid in teaching operation of 1200 lb propulsion system	Surface Warfare Officers School, Coronado
STEAMER II	PC-based training aid in teaching operation of 1200 lb propulsion system	Commander, Naval Surface Reserve Forces; Naval Reserve Readiness Centers
Electronic Countermeasures/Electronic Counter-countermeasures	Teaching recognition of and response to electronic radar system	Fleet Combat Training Center, Pacific (FCTC-P); Fleet Combat Training Center, Atlantic (FCTC-L)
S-3B Feature Analysis Decision System	Training of personnel to recognize contacts on advanced radar system	VS-27, Fleet Aviation Special Operations Detachment, Cecil Field
S-3E Passive Acoustic Decision System	Training of advanced acoustic decision system	VS-27, VS-41, VP-30, VP-31; Anti-submarine Warfare Training Center, Pacific, Atlantic; Surface Ship Acoustic Analysis Center

Project	Implemented Product	Site
E-2C Radar Operator Simulation Training	Training of tactical personnel in operation of radar system	VFW-110, VFW-120
H-53 Helicopter Maintenance Simulation	Computer training system for USMC H-53 maintenance personnel	MCAS(H), Tusun
Battle-management Assessment System and Raid Originator Bogie Ingress (BATMAN & ROBIN)	Human-computer interfaces for joint tactical information distribution system computer models	Naval Air Development Center
	Assist in the development of AEGIS scenario development system (ASDS)	Naval Surface Weapons Center
	Support warfare analysis laboratory	Applied Physics Laboratory/Johns Hopkins University
	Scenarios for adaptive functional allocation for intelligent cockpits	Naval Research Laboratory
	ROBIN front-end expert system to create complex scenarios (TACTIC)	NAVTRASYSSEN
	Scenario generation for integrated undersea surveillance system	Naval Ocean Systems Center (NOSC)
	Front-end for battle force in-port trainer (BFTT)	NOSC
	New user interface for War-game Weapons and Tactical Analysis Center (WEPTAC) war-game; Phase II (WEPTAC II)	Naval Weapons Center (NWC)
	Support War-gaming Analysis Research Laboratory	Naval Postgraduate School
	Advanced tactics training for E-2C and E-3A crews	Carrier Airborne Early Warning Weapons School, Naval Air Station (NAS), Miramar
	Advanced anti-submarine warfare (ASW) and anti-surface warfare tactics P-3C	Com. Under Patrol Wings, Pacific, NAS, Moffett Field
	Interoperability of air and surface platforms for ASW	Sea-based Weapons Advanced Tactic School, NAS, North Island
Skill Enhancement Program	Maritime air superiority (MAS) F-14 fleet replacement crews	VF-124, NAS, Miramar
	Electrician's Mate (EM) model "A" school computer-based instruction programs	Naval Training Center (NTC), Great Lakes
Low Cost Micro-computer Training Systems (CBESS)	Officer and specialist threat memorization training	Navy and Marine Corps Intelligence Center, Dem Neck
	Threat memorization training	Commander Tactical Wings, Atlantic; NAS, Oceana

Project	Implemented Product	Site
CBESS (Continued)	Tactical action officer threat memorization training	RCTC-P, San Diego
	Helicopter crew threat recognition training	Aviation Research and Development Facility, Ft. Rucker
	Remedial training job-oriented basic skills	CNTT
	Remedial training (SeaBees)	Naval Construction Training Centers, Gulfport, Port Hueneme
	EM "A" school	NTC, Great Lakes
Authoring Instructional Materials	Refresher training	CNET Water Front Trailers, Long Beach, Norfolk
	70 weeks of instruction in various fields	Naval Education and Training Support Center, Pacific (NETSCPAC), Training Systems Development Department
	Over 500 weeks of instruction in engineering and electrical systems	Service School Command, NTC, Great Lakes
	Submarine systems	Naval Submarine School, New London
	TRIDENT engineering, operations, and strategic weapons training materials	TRIDENT Training Facilities, Kings Bay, Bangor
	Naval Sea Systems Command curricula	Naval Ship Weapons System Engineering Stations, Philadelphia, Port Hueneme
	SSN-21 systems	Newport News Shipbuilding
	Technical training	AEGIS Training Center, Dahlgren
	Computerized front-end analysis tools	NETSCPAC, Training Systems
Artificial Intelligence (AI) Tools in Authoring	Computerized front-end analysis tools	Service School Command, NTC, Great Lakes
Joint Staff Officer Training System	Training on joint staff operations	Joint Chiefs of Staff
AI in Explosive Ordnance Disposal	Computerized job aids	Explosive Ordnance Disposal Technology Center, Indian Head, MD
Courseware Portability	Programming standards for computer-based instruction/video	Office of the Secretary of Defense (OSD)

Organizational Systems

Project	Implemented Product	Site
Guidelines for Transportable Education and Training	Transportable lessons from Defense Systems Management College's (DSMC's) Program Management Course and lessons learned in converting transportable course/lessonware	DSMC; Air Force Institute of Technology; Army Training and Doctrine Command, Ft. Monroe
Demonstration Project	Evaluation of Pacer Share Demonstration Project	Sacramento Air Logistics Center, Distribution Depot Region West, Control Sites
Personnel Surveys	Developed CCIC CINCLANT Navy-wide Personnel Survey	CINCLANT Fleet DON
Total Quality Leadership	TQL Climate Survey; Transformation Activity Orientation Survey; Process Improvement Notebook Strategic Planning Deployment Aid; Customer Interview Tool	Prepared for Navy-wide distribution
Experimental Civilian Personnel Office	Evaluation of innovative civilian personnel practices with recommendations and guidelines for Department of Defense implementation	Headquarters, U.S. Army Communication and Electronics Command, Ft. Monmouth; Naval Supply Center (NSC), Norfolk; U.S. Air Force Academy; Defense Industrial Supply Center, Philadelphia; U.S. Army Europe, Heidelberg, Stuttgart, Frankfurt; Defense Depot, Memphis; Defense Contracting Administration Services Region (DCASR), Cleveland, Dallas, Boston, New York, Los Angeles, Chicago, St. Louis, Philadelphia; Air Base, Sembach; Air Force Base, Patrick, Charnute, Davis-Monthan, Miraflores, Andrews, Hickam, F. E. Warren; Defense Personnel Support Center; Defense Electronics Support Center; Defense Construction Support Center, Ft. Gordon, Ft. Eustis; NTC, San Diego; NAS, San Diego, Alameda, New London, Rota, Spain
Organizational Survey	Develop and administer survey	Navy Regional Contracting Center, San Diego
Navy Air Systems Command (NAVAIR) Total Quality Management (TQM)	TQM prototype	NAVAIR-04
DCASR/TQM	TQM prototype	DCASR, Philadelphia
TQM for OSD	TQM educational design	OSD, Under Secretary of Defense (Acquisitions)

Project	Implemented Product	Site
Defense Communication Agency (DCA) TQM	TQM prototype	DCA
Navy Logistics Productivity Quality Improvement	TQM prototype	Naval Aviation Depot (NADEP), North Island; Sacramento Army Depot
Fundamentals of TQL	Prerequisite course for all DON TQL courses	TQL schools at NAB Coronado and Little Creek
Navy Logistics Productivity Quality Improvement (Continued)	TQM assessment	Naval Shipyards, Pearl Harbor, Portsmouth; NADEP, North Island, Cherry Point; NSC, San Diego; Sacramento Army Depot
Productivity Gain-sharing	Gain-sharing system	Fleet Combat Direction Systems Support Activity, San Diego; NSC, Oakland, Pensacola; NADEPs, Cherry Point, North Island, Jacksonville, Norfolk; Naval Shipyards, Portsmouth, Charleston; Navy Regional Data Automation Center, Norfolk; Public Works Center, San Diego
Acquisition Technology	Technology enhancements in Program Management Offices	NAVAIR (PMA-273), (PMA-260)

Appendix B

Databases

Manpower

Database	Description	Sponsor/User
Tooth to Tail	Historical manpower data for forces and support categories.	Bureau of Naval Personnel (BUPERS), (PERS-52)
Personal Computer-Officer Programmed Authorizations/Enlisted Programmed Authorizations	Future years defense plans end strength and bullets	BUPERS (PERS-52)
Manpower Projection	Ships, aircraft, and manpower (historical)	BUPERS (PERS-52)
Force Analysis Simulation Technique (FAST) Input Model (FAIM)	Historical enlisted Navy personnel data	BUPERS (PERS-221)
Enlisted Management Community Database	Historical enlisted Navy personnel data	BUPERS (PERS-221)
FAIM-O	Historical longitudinal Navy officer personnel data	BUPERS (PERS-21)
Officer Personnel Information System (PCOPIS)	Historical, aggregated Navy officer personnel data	BUPERS (PERS-21)
U.S. Marine Corps (USMC) Enlisted Personnel Database	Historical, longitudinal USMC enlisted personnel data	USMC (MPP-20)
USMC Officer Personnel Database	Historical, longitudinal USMC officer personnel data	USMC (MPP-30)
Qualified Military Available Database	Qualified military available projections for USMC recruiting regions	USMC
Recruiting Information Delivery System (RIDS)	Historical demographic, economic, educational, production data by Navy recruiting areas, districts, and counties	BUPERS (PERS-23), Naval Recruiting Command
Budget Obligation Analysis and Tracking System	Navy military personnel entitlements data	BUPERS (PERS-7)
Standard Personnel Measures (SPM)	Procedures for measuring personnel system behavior	BUPERS (PERS-22)
Joint Specialty Officer (JDS)	Historical aggregate Navy data on JSOs	BUPERS (PERS-45)

Personnel

Database	Description	Sponsor/User
Naval Reserve Officer Training Corps	Applicant information, school performance information, fitness report (FITREP) data	Chief of Naval Education and Training (N-1A)
Naval Academy	Applicant information, school performance information, FITREP data	U.S. Naval Academy (Dean of Admissions)
Officer Career	Questionnaire information, officer master file information	CNO (OP-130E)
Navy Integrated and Training System	Navy class "A" school information merged with Armed Services Vocational Aptitude Battery (ASVAB) data used for ASVAB validation and related studies and analyses	CNO (OP-135L), BUPERS (PERS-291)
Computer Managed Instruction Data	Similar to Navy integrated training and reporting system data, merged with ASVAB data and used for ASVAB validation and related studies and analyses	CNO (OP-135L), BUPERS (PERS-291)
Joint Officer Monitor Officer	Officer and billet data pertaining to past and present joint duty assignments for USMC officers	Headquarters, Marine Corps (MMOA-3)
Classification and Assignments within PRIDE (CLASP) ^a	Accession data, job options presented by CLASP	BUPERS (PERS-291)
PRIDE Data ^b	Recruitment information (data of enlistment, targeted rating) CLASP used for studies on Navy recruits and creating regression formulas used in CLASP	BUPERS (PERS-23), PERS-291)
Adaptability Screening Profile	Biographical, demographic, and first-term attrition information on military service enlisted applicants and accessions	BUPERS (PERS-23)
Compensatory Screening Model	FY88-89 DOD applicant data and first-term attrition data	OASD (FM&P)
Defense Manpower Data Center/ASVAB Data ^b	Navy enlisted applicants and accessions by fiscal year used for validation and related studies and analyses	BUPERS (PERS-23), (PERS-291)
American Youth Population Data	Maintained 1980 metric sample for ASVAB (youth 18-23), used for calibrating new forms of ASVAB, developed population parameters needed to correct for restriction of range in ASVAB validation samples	BUPERS (PERS-23), (PERS-291)
Reading Grade Level	Examinee data on both ASVAB and reading grade tests, used to estimate reading ability of military accessions without administering a reading test	OASD (FM&P)

^aPersonalized Recruiting for Immediate and Delayed Enlistment (PRIDE).

^bDatabases are extracted from larger databases for use in responding to consumer's requests for data analysis.

Training

Database	Description	Sponsor/User
Operations Specialist (OS) Career Systems Design Rating	Materials, information, and products resulting from the OS rating training continuum	CNO (OP-111J)
Electronic Warfare (EW) Career Systems Design Rating	Materials, information, and products resulting from the EW rating training continuum	CNO (OP-111J)
Training Tracking File (TRAINTRACK)	Historical longitudinal Navy training and personnel data—an SSN-based data file	BUPERS (PERS-22), N-7, CNET, Chief of Naval Education and Training

Organizational Systems

Database	Description	Sponsor/User
Total Quality Management (TQM)/Productivity Gain-sharing (PGS)	Maintained data on status of implementation of TQM and PGS for Navy organizations with 50 or more civilian employees	Office of the Secretary of the Navy (SECNAV)
Organizational Systems	Maintained data on organizational culture, climate, and effects of implementing TQM and PGS for those organizations participating in follow-up evaluations of TQM and PGS	SECNAV

Distribution List

Chief of Naval Personnel (PERS-00), (PERS-00B)

Assistant for Planning and Technical Development (PERS-01JJ)

Chief of Naval Operations (Historian)

Defense Technical Information Center (DTIC) (4)